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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/820,912

04/08/2004

Chuck Pham

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29074

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10/18/2006

EXAMINER

KOCA, HUSEYIN

VISTEON

C/O BRINKS HOFER GILSON & LIONE

PO BOX 10395

CHICAGO, IL 60610

ART UNIT

PAPER NUMBER

3744

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,912

Applicant(s)

PHAM ET AL.

Examiner

Huseyin Koca

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/8/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-21 is/are rejected.
- 7) ☒ Claim(s) 7-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/8/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/8/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Drawings

The drawings are objected to because specification (paragraph 44) refers to Figures 1 and 3b and describes "magnitude signal 96" which is neither in Figure 1 or 3b. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because there is inconsistency in Fig. 3a. Majority of representation is designated by "a" to "d" from left to right but during the description of "blower control system 312" representation of "a" and "d" are mixed on the right. Same inconsistency also occurs in Fig. 3b. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 178a and 182a (paragraph 50, page 18), 297 (paragraph 54, page 20), and 378a and 382a (paragraph 63, pages 24-25). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 378 and 382d in Fig. 3a and 178 and 182d in Fig. 3b. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "294" (paragraph 54, page 20) and "296" (paragraph 55, page 20) have both been used to designate "magnitude signal." Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if

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only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "294" has been used to designate both "magnitude controller" (paragraph 54, page 20) and "magnitude signal" (paragraph 55, page 20). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37

CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Holdgrewe et al. (U.S. Patent No. 6,435,471 B1).

Regarding to claim 1, Holdgrewe et al. teach an air control system capable of controlling temperature and the flow rate of the air when air enters the passenger compartment. Control system comprises a manual setting member where the temperature and flow rate of the air is manually controlled. Holdgrewe et al. control

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system automatically controls temperature and the flow rate of the air based on situation detection algorithm. Holdgrewe et al. teach that the control system updates situation detection algorithm based on an input from the manual setting member (C-2; L-23-26) and based on a variable learning rate (C-4; L-24-39).

Regarding to claims 2, Holdgrewe et al. teach that variable learning rate is based on a first and second input from the manual setting. First input corresponds to a time value (C-2; L-48-50) and second input corresponds to a magnitude (user intervention) (C-1; L-49-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3-6, 11-14, 16, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdgrewe et al. (U.S. Patent No. 6,435,471 B1).

Regarding to claim 3, Holdgrewe et al. teach an air control system where property of the air entering the passenger compartment is controlled through a manual setting member. Holdgrewe et al. control system automatically controls the property of the air based on control characteristic (situation detection algorithm) where the control system updates the control characteristics based on an input from the manual setting member and based on variable learning rate (see claim 1 above). Holdgrewe et al. use two properties of the air, which are temperature and the blower speed (C-4; L-42-44). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a second air control system to control the second property of the air. It also would have been obvious to one having ordinary skill in the art at the time the invention was made to use a second manual setting member to control the second property of the air. The example of this can be seen in the car heat/air conditioning system where a passenger can adjust the temperature and blower speed manually.

Regarding to claim 4, see claim 2 above. Also, it will be easier to understand claim 4 obviousness by understanding claim 3 rejection above. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a time value and magnitude as inputs for the second manual setting member since the claim 3 is similar to claim 1.

Regarding to claim 5, Holdgrewe et al. use volumetric flow rate as property of the air entering the passenger compartment (C-4; L-43).

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Regarding to claim 6, Holdgrewe et al. use temperature as property of the air entering the passenger compartment (C-4; L-43).

Regarding to claim 11, Holdgrewe et al. teach an air conditioner for an automobile comprising a blower (C-4; L-43-44), a manual setting member (C-2; L-25-26), a measurement system to measure environmental condition (C-2; L-40-47), and a control system that automatically controls learned preferences (C-1; L-61-63).

Holdgrewe et al. doesn't state that manual setting member is for the blower but it is stated that the blower speed stage is considered as controlling factor (C-4; L43-44). The controlling factors are controlled by the user on an operating unit situated in the vehicle (C-2; L-25-26). Depending on the user intervention, a specific climatic situation is recognized (C-1; L-49-50). User intervention and time is considered as inputs from the manual setting member (see claim 2 above). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a control system that automatically controls the volumetric flow rate of the air based on the plurality of preferred blower settings where each of the plurality of preferred blower settings is determined based on a signal from the manual setting blower member. Holdgrewe et al. also teach that the plurality of preferred blower settings are updated at a variable learning rate (C-4; L-20-26, 36-39).

Regarding to claim 12, Holdgrewe et al. teaches that the temperature is considered as controlling factor (C-4; L-43-44). The controlling factors are controlled by the user on an operating unit situated in the vehicle (C-2; L-25-26). Therefore it would be obvious to have a two different controller for two different property of the air.

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Depending on the user intervention, a specific climatic situation is recognized (C-1; L-49-50). User intervention and time is considered as inputs from the manual setting member (see claim 2 above). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a second control system that automatically controls the temperature of the air based on the plurality of preferred temperature settings where each of the plurality of preferred temperature settings is determined based on a signal from the manual setting temperature member. The similarity in controlling the temperature and volumetric flow rate of the air also can be seen in the car heat/air conditioning system where a passenger can adjust the temperature and blower speed manually. Holdgrewe et al. also teach that the plurality of preferred temperature settings are updated at a variable learning rate (C-4; L-20-26, 36-39).

Regarding to claims 13 and 14, Holdgrewe et al. use the situation detection algorithm as a control characteristic (C-2; L-44-47). It will be obvious to someone to use a least squares curve fit calculation to determine the algorithm as the applicant states in the specification, "the algorithm may be determined using a least squares curved fit calculation, which is a well-known mathematical model for fitting a curve to a given set of data points resulting in the minimal sum of the deviations squared" (paragraph 45, page 15). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to use a least squares curve fit calculation to determine the control characteristics (algorithm) because it is a well known mathematical model.

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having ordinary skill in the art at the time the invention was made to use plural measurement systems to measure different environmental conditions.

Regarding to claim 17 and 20, see claim 12 above.

Claims 15, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdgrewe et al. (U.S. Patent No. 6,435,471 B1) and further in view of Sunaga et al. (U.S. Patent No. 5,729,989).

Regarding to claims 15, 18, and 21, Holdgrewe et al. select environmental condition from a group consisting of outdoor temperature and the inside temperature (C-2; L-28). Holdgrewe et al. does not disclose sun load adjacent to the automobile, and humidity in the passenger compartment of the automobile in the selection of environmental condition. Sunaga et al. disclose an electronic climate control system for automotive vehicles. In Sunaga et al. system, environmental condition is selected from a group consisting of an ambient temperature (C-1; L-27), sun load (C-1; L-28-29), temperature in the passenger compartment (C-1; L-26), and humidity (C-1; L-32-36). It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to combine the environmental condition used by Sunaga et al. with Holdgrewe et al. to make a group consisting of an ambient temperature, sun load, temperature and humidity in the passenger compartment of the automobile to select environmental condition.

Allowable Subject Matter


Claims 7, 8, 9, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huseyin Koca whose telephone number is (571) 272-3048. The examiner can normally be reached on Monday - Friday 8:30AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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